

The Veritas identity & System Omega in the Physikle Λ -model.

System Omega $\omega = \left[\frac{k}{m} \right]$ appears quite generally in Nature's Laws & familiar Physics identities & relationships.

Thus we introduce a new lambda model version of System omega $[\omega]$ s, & respectfully suggest 'omega' may be masked historically through variant essentially classical expressions, yet can be discovered anew via 'trial by Algebra'.

First we introduce a Platonik identity invented, discovered, or imagined by the Author and known as the Veritas *equation*, given here.

$$1. \quad h - dd . \lambda = h . \lambda - dd$$

$$1.a \quad \frac{h - dd . \lambda}{h . \lambda - dd} = 1$$

$[-dd]$ means 'double' - dot or $\frac{d^2}{dt^2}$, where $[-dot]$ is likewise $\frac{d}{dt}$

Newtonian dot notation is implied, albeit somewhat nuanced in a model parametrik sense, i.e. dots may *flow* freely under action of a system omega, and in this fluid or *fluxions* sense, a standard both-ways *time symmetry* is invoked. What is non-standard is that system time $\{t\}$ s and system general force $\{F\}$ s are synonymous, or actually identical with the system gamma $[\gamma]$ s. A model hypothesis is such that a '*time is force*' argument applies. ., {subscript [s]} = 'system' as applied in the Lambda model}

Also system Omega is negative system gamma, or

$$2. \quad \{ \omega = -ve \gamma \} s$$

Equation 2. is in effect N.3.L. & Hooke's Law $[F = -kx]$, or $Fs = \{-ve \lambda . \lambda\} s$

in this model, 2.a. $[\omega]s = -ve \{t\}s$ also.

We introduce **System Omega**: 3. $\left[\omega = \frac{mm}{\gamma^8} \right] s = [\gamma^{-3}] s$ also, & or equivalently we can get

$$3.a \quad \left[\omega = \frac{k}{m} \right] s$$

this is the simple version, and reflects a '*wave - partikle*' *mutuality* in this model.

Where $[k]s$ is the wave number of the system, classically $\left[k = \frac{1}{\lambda} \right] s$, thus

$$3.b \quad \omega m \lambda = 1$$

& a model **de Broglie** expression can be inferred

$$4 \quad \lambda = \omega m \gamma$$

Where subscript $[s]$ is generally implied going forward e.g. * system lambda $[\lambda] = [\lambda]s$

note: system gamma = system lambda squared, in modulus sense

$$5. \quad [\gamma] = [\lambda^2]$$

and from 3. above $[mm]$ must be γ^5

or we get system mass $[m]s$

$$6. \quad [m] = [\lambda^5]$$

We can see from previous identities that all parameters can be expressed in λ or $[k]$ numbers of any physical system under inspection.

By physical we mean $\lambda s \neq 0$, which implies also, $m \neq 0$

Obviously the k – number is the reciprocal λ number, etc, or classically

$$k^n = 1/\lambda^n$$

So if λ cubed (classically a volume V) yields energy,

$$\text{we may call this } m - \text{dot} = \left[\frac{dm}{dt} \right] = \frac{m}{\gamma}$$

The reciprocal k – number scenario would be inverse volume or k^3 , and we call that **acceleration**

$$\text{or, } \frac{d^2 \lambda}{dt^2} = \lambda - \ddot{\lambda} = \text{acceleration } [a] = k^3 = k - \text{dot} = [k/\gamma]$$

All identical we call this the **gravity pixel** in the λ model,

And further add that $[a]$ is identical with **negative mass**, or

$$[a] = -ve m = m - dddd = m - '4 \text{ dots}' = \frac{m}{\gamma^4} = \frac{d^4[m]}{dt^4}$$

The negative operator is $\frac{1}{\gamma^4}$ and adds a $\frac{1}{2}$ cycle clockwise rotation in the model

w.r.t horizontal the standard r.h.s. datum * on a unit λ complex wheel

Thus 2 negative operators in tandem gives 1 full c.w. rotation.

In essence system 'inertial mass' lies on λ^5 a.c.w. & $-ve$ mass lies on λ^{-3} c.w. phase sense *.

Mass having being divided by λ^8 here, as $\gamma = \lambda^2$, stated previously.

The model views inertial mass as Action, and $-ve$ mass as reaction or $-ve$ action.

$$\text{Or, } \text{Action } 7. \quad \gamma \cdot m - \text{dot} = m,$$

$$\& -ve \text{ Action } 8 \quad -ve[\gamma \cdot m - \text{dot}] = -ve m$$

$$\text{can be } 8.a \quad -ve \text{ mass} = [-ve \gamma \cdot \text{energy} (+) \gamma \cdot -ve \text{ energy}]$$

[2] states in omegik superposition

$$\text{We note here that } -ve \text{ energy is } \left[\frac{\lambda^3}{\gamma^4} \right] = \left[\frac{\lambda^3}{\lambda^8} \right] = \frac{1}{\lambda^5} = k^5 = 1/m \text{ reciprocal mass.}$$

Which supplies a useful model standard utilising $[-ve m - \text{dot}] = \frac{1}{m}$ thus

$$9. \quad -ve [m \cdot m - \text{dot}] = 1$$

and equivalent to

$$\text{Unity} = [-ve \text{ mass} \cdot \text{energy}] \leftrightarrow (+) \leftrightarrow [-ve \text{ energy} \cdot \text{mass}]$$

[2] states convergent at r.h.s. datum peg $[\lambda s^0 = +ve 1]$, on Unity model complex wheel.

With a little work most if not all of the previous identities can be morphed into & flow thro each other,
and we quote some model standards with resonance to classical familiars.
from previous view w.r.t Action = m, -ve Action = -ve m = Reaction
The product of action x reation yields the Gamma 'force' or N.2.L.& U.L.G.

$$10. \quad \gamma = -m.m \quad \text{identical to } F = ma$$

And with a -ve Operator applied to 10. we get omega

$$11. \quad \omega = -ve . -ve [m.m]$$

$$11.a \quad \omega = [\{ - - m . m \} (+) \{ -m . -m \} + \{ m . - -m \}] \quad [3] - \text{states}$$

as acc = -ve mass then, -ve a = -ve . -ve mass

$$-ve a = \left[\frac{m}{\gamma^8} \right] = \frac{\lambda^5}{\lambda^{16}} = \frac{1}{\lambda^{11}} = k^{11}$$

$$\text{now } k^{11} = S - \text{dot} = \frac{S}{\gamma} = \frac{dS}{dt} \quad \text{i.e. entropy - rate}$$

$$\text{thus entropy } [S] = k^9 \quad \& \text{ a.c.w sense}$$

Thus we can produce another model omega expression

$$11.b \quad \omega = -ve . -ve [m.m]$$

$$\text{thus } 11.c \quad \omega = [mS] - \text{dot}$$

& expanded to

$$\omega = \{ [m - \text{dot} . S] \leftarrow (+) \rightarrow [m . S - \text{dot}] \}$$

$$\text{System Omega} = [\{ \text{energy} \times \text{entropy} \} \leftrightarrow (+) \leftrightarrow \{ \text{mass} \times \text{entropy rate} \}]$$

this last can help with darkness paradigms currently in vogue in Physik.

The model views energy in the classical way, say in conventional

Newtonian, Hamiltonian or Lagrangian sense, i.e.

these express any dynamic system of kinetic & potential energy states in mutual fluxion/s.

This is $m - \text{dot}$ in a general model sense, where the $[-\text{dot}]$ operator is frequency, $f = 1/t$

thus the model contends,

$$12. \quad [\lambda - \text{dot}]^2 = [\lambda . \lambda - dd] \text{ is likewise a frequency or } \left[\frac{1}{\gamma} \right] \text{ expression.}$$

as lambda-dot is a k-number, this is classically a velocity expression

$$\text{Where } \lambda - \text{dot} = \left[\frac{\lambda}{\gamma} \right] = \left[\frac{dx}{dt} \right] = v, \text{ as lambda can be } \{x\} \text{ of course.}$$

So we may derive a grounding in 12. for Fitzgerald - Lorentzian effects, such as length contraction etc,

A model maxim is developed.

A terrible beauty is born

Large Lambda schemes have low magnitude $[k]$ – numbers, and thus very small acceleration number.

Conversely very small lambda schemes have large magnitude

$[k]$ – number & thus very large acceleration.

We can further add

large schemes possess low magnitude entropy $[S]$ & very low entropy rate $[S] - \text{dot}$, respectively.

Conversely large magnitude $[S]$ & even higher $\left[\frac{dS}{dt} \right]$ are experienced in micro – lambda schemes.

A fearful symmetry

seems apparent at Cosmological & quantum scales in Nature.

*This maxim is counter to the standard view that the twain never meets in Quantum & Classically relativistic models, thus the 'idee fixe' developed, we absolutely must! find a holy grail solution such as 'quantum gravity' to fix the * disparity.*

*The 'dichotomy' is potentially a phenomenological perspective only, largely historical in basis, & erroneous one might strongly suspect. Local System Model * $[h \equiv a]$ dispels this thro equality of course.*

Physical lambda model adherents maintain that it is mistaken to mean fundamentally different physics is at work here.

In the λ – model, scale is invariant and model Physik rules are quite general, regardless of size, for any particular scheme/s under investigation.

Let's look at some examples:

Keplers 3rd Law

$$\frac{R^3}{T^2} = \text{constant } [k]$$

Or in model terms, $R = \{r\} = \{x\} = [\lambda]$ or system lambda, thus

$$\begin{aligned} \frac{\lambda^3}{\gamma^2} &= \frac{\text{energy}}{\text{momentum}} = \frac{m - \text{dot}}{p} \\ &= \frac{m - \text{dot}}{\gamma^2} \\ &= \frac{m}{\gamma^3} \\ &= \omega m \end{aligned}$$

& as product $[\omega \cdot \text{mass}]$ equates to a system $[k]$ – number

i. e. $\omega m = k$, Keplers costant is the k – no of our local Binary System or Newtonian G .

This allows us to gauge Solar scheme Omega at the Earth remove.

*We use o. o. m. calculations and no units, or we end up with dimensionless ratios on occasion
otherwise the S.I. relevant unit or units are always implied.*

$$\text{Let } M = 10^{30}, m = 10^{25},$$

& let system mass [m]s = binary product [Mm], law of lever resonance.

and as the de Broglie yardstick is $\lambda s = 10^{11}$

$$\begin{aligned} \text{Then System Omega } *, \text{ gives, } \omega &= \frac{k}{m} \\ &= \frac{1}{[m \cdot \lambda]} = \frac{1}{[10^{55} \cdot 10^{11}]} \\ &= 10^{-66}. \end{aligned}$$

And as Omega = a^2 then our local system acc pixel -ve mass = $\sqrt{[10^{-66}]}$

*= -ve m = [a] = modulus circa [h] the Planck unit of Action,
we see it as -ve action of course.*

** $[k - \dot{d}]^2 = [k \cdot k - \dot{d}\dot{d}]$ is equivalent to system Omega, or*

$$a^2 = k \cdot \frac{1}{m} = \text{Omega}$$

Conjecture w.r.t. Equation 12. $[\lambda - \dot{d}]^2 = [\lambda \cdot \lambda - \dot{d}\dot{d}]$

a transfer of one r. h. s. 'denominator' lambda is a first step to

K.3.L if [k] i. e. thus also $[k^2]$ is kept 'relatively constant' the reciprocity relationship for the product $[\lambda \cdot a]$

*as conveyed in the model maxim, can be a candidate explanation for the **Galactic rotation curves** conundrum.*

*The observations multiply support flat velocity rotation curves, [12.] produces a ready **M.O.N.D.** style explanation,*

*actually a **metrik density** $[\text{Gamma} \equiv \text{Rho}]$ formalism, ... sans darkness*

*In any case equation 12. is effectively, a classical $mv^2 = mgh$, where, $[v = k = \frac{\lambda}{\gamma}] = \text{lambda} - \dot{d}$, $[g = a]$ & $[h = \lambda]$, we might
now also restore a 'cancelled' system mass [m] & omit the 1/[2] factor from the Kinetic l.h.s, we say the [2] can be fashioned as states, or*

$$[\lambda - \dot{d}]^2 = [\{\lambda \cdot \lambda - \dot{d}\dot{d}\} \leftarrow (+) \rightarrow \{\lambda - \dot{d}\dot{d} \cdot \lambda\}] = \{[\lambda \cdot a] \leftarrow (+) \rightarrow [a \cdot \lambda]\} = [2] \text{ states, trivially redundant:}$$

*or in **lambda script***

$$\left[\frac{\lambda}{\lambda \cdot \lambda} \cdot \frac{\lambda}{\lambda \cdot \lambda} \right] = \lambda \cdot \left[\frac{\lambda}{\lambda \cdot \lambda \cdot \lambda \cdot \lambda} \right] \quad \text{transfer 1 lambda to l.h.s. gives,}$$

$$\frac{[\lambda \cdot \lambda \cdot \lambda]}{[\gamma \cdot \gamma]} = \left[\frac{\gamma}{\lambda \cdot \lambda \cdot \lambda} \right] \quad \text{i. e. } \left[\frac{r^3}{t^2} \right] = \left[\frac{t}{e} \right] \quad \text{where } \lambda^2 = \gamma, \text{ \& } t^2 = \gamma^2 = p$$

& as $\{r^3 \equiv \lambda^3 = \text{energy}, [m - \dot{d}]\}$, we can say $\left[\frac{e^2}{t^3} \right] = \text{Unity}$, pseudo style K.3.L. a la mode

*$\frac{\&}{or}, \{ \text{energy}^2 = \text{mass} \times \text{lambda} \} = \gamma^3$ or, **reciprocal omega**, ... now we can look at Dirac.*

Dirac's relativistic electron eqn rendered into the model

$$m\{\psi\} = i.\gamma \frac{d[\psi]}{dx}$$

$$\text{in 1 - d here say, thus } \frac{d}{dx} = \frac{d}{d\lambda} = \frac{1}{\lambda} \text{ (approx.)} = [k]s$$

in our model imaginary $\{i\}$ is equivalent to system momentum, thus

$$\{i\} = p = \gamma^2 = \lambda^4 = \sqrt{[m.m - dot]} = \sqrt{(-1)}$$

also, we can cancel Psi both sides, for clarity, i. e. the pared down model Dirac, now gives

$$m = k/\omega$$

Schrodinger

$$i\hbar \frac{d\{\psi\}}{dt} = H\{\psi\}$$

Again 'cancelling' $[\psi]$ or allow Psi = Unity, let $[i = p]$ as before, & $d/dt = -dot = \frac{1}{\gamma}$

& as $\hbar = \left\{\frac{h}{2\pi}\right\}$, we ignore factor [2] as indicating perhaps 2 - states.

We get, $\{i - \hbar\} - dot = \text{energy or,}$

$$[\{i - dot.[\hbar - bar]\} \quad (+) \quad \{i.[\hbar - bar] - dot\}] = m - dot,$$

where we allow for a possibility of +ve/-ve energy on r. h. s.

$$\text{Firstly, } \hbar - bar = -ve \frac{\text{mass}}{(2)\pi}$$

$$= -mp, \quad \text{as } 1/\pi = p$$

$$= ap = k^3.\lambda^4 = \lambda \text{ in this case}$$

then $\{i.\hbar - bar\} - dot$ gives,

$$[p.\lambda] - dot = [\{p - dot.\lambda\} \quad (+) \quad \{p.\lambda - dot\}]s$$

$$\text{or [2] states } [\{p.k\} + \{\gamma.\lambda\}] = \text{energy} = \text{modulus } [\lambda^3]$$

Now +ve energy = reciprocal acceleration (gravity) or, a.e = Unity

& if we plumb for -ve energy, that is identical to inverse mass.

So we see in the generalized T.D.S.E,

we have a very full exposition of the scheme, in either & both,

a dynamic Superposition of [2]states

$$-ve[\text{mass} . \text{energy}] = \text{Unity, identically } [\text{acceleration} \times \text{energy}]$$

&/or

$$[\text{mass} . -ve \text{ energy}] = \text{Unity} = [m/m]$$

A system incorporating +ve & -ve aspects of mass, energy,

& gravity at face value and the system Omega within.

Maxwell & Faraday.

$$-\frac{dB}{dt} = \nabla \times E$$

We state some assumptions, the minus sign here (−) is model −ve Operator

B can be $[m.\gamma] = \text{lambda}^7 \text{ unity wheel} * \text{peg coincident with both moment of inertia } [I]$,
and also $[S] = k^9$, but we go with the former case here

$$\text{so, } \frac{dB}{dt} = \frac{[m.\gamma]}{\gamma} = m$$

$$\text{Likewise, } -ve \frac{dB}{dt} = -ve \text{ mass} = [a]$$

$$\{t\} = [\gamma]s, \quad \nabla = Del = \frac{d}{dx} \text{ in } 1-d, \text{ and thus } = [k]s$$

$E = -ve \text{ frequency}$, and/or $-ve. -ve[m.\lambda]s$ identically = $-ve[\text{energy}^2]$ thus E yields $1/mm$

& finally the classical $[X]$ vector product, is also = $-ve \text{ Operator} = \frac{1}{\gamma^4}$

we get,

$$a = del \times E$$

$$= k \cdot -ve \frac{1}{mm}$$

$$= -\frac{vek}{mm}$$

$$= \frac{S}{mm}$$

$$= k^9 \cdot k^{10} = k^{19}$$

Now k^{19} is coincident with the 'peg' $[k^3] = [a]$

on the familiar unit – λ complex wheel

after 1 full c.w. rotation by k^{16} , thus

$$-ve \text{ mass} = a$$

Note: The model uses a *Unity lambda complex wheel with `16 pegs set apart at intervals of $[\pi/8]$

The general lambda $[\lambda s]$

$$14. \text{ System Lambda} = \left[\lambda \cdot e^{i\frac{\pi}{8}} \right]^n \quad n = +/ - \{ 0, 1, 2, 3, \}$$

+ve integers yield $[\lambda]^n$ and −ve integers $[k]^n$

these, cycle in acw & cw rotation sense, respectively.

Maxwell cont.

Similarly on the unity wheel, we see [B] & [S] share a coincident peg,

therefore is it possible that [B] could a micro lambda

phenomenon label for entropy [S], and of course visa versa?

$$\text{Say } \omega = \left[\frac{mS}{\gamma} \right] = \left[\frac{mB}{\gamma} \right]$$

$$= [mS] - \text{dot} = m - \text{dot} \cdot S \quad (+) \quad m \cdot S - \text{dot} \quad \&/\text{or}$$

$$= [mB] - \text{dot} = [\{m \cdot \text{dot} \cdot B \leftrightarrow (+) \leftrightarrow m \cdot B \cdot \text{dot} \}]$$

$$\text{Then } \frac{w}{m} = B - \text{dot} = \frac{k}{mm} = k \cdot E$$

Thus we derive a familiar, $E = cB$ can be found

$$B = E \cdot k\gamma = E \cdot \lambda \quad \text{thus}$$

$$E = kB = cB \quad \& \text{ now } cS = kS = E = k^{10} \quad \text{and from}$$

$$w/m = B \cdot \text{dot}$$

$$[-m \cdot m] / m = dB/dt \quad \text{then,}$$

$$-m = -dB/dt = [a], \text{ etc}$$

w.r.t to generic Platonik identities in the model there are many 2nd order equations or identities which allow for resonance with Classical ideas.

Generally any sensible *dummy parameter* [\$]

+ve /-ve will do to emulate $\gamma \cdot [\$] - \text{dot} = [\$]$ examples,

$$[\$] = \{ \text{mass}, \quad \text{lambda}, \quad \text{Hooke } [K], \quad \text{entropy}, \quad \text{etc} \}$$

Which aligns well with another 2nd order type

$$[[\$] - \text{dot}]^2 = [\$] \cdot [\$ - dd]$$

and some notable examples are again lambda, & [k], mass, entropy, omega, & gamma, [K], etc,

Thus we may look at the System gravity pixellation from an array of

cyclik & mutually iterative 'sources'

e.g. {entropy [S] &/or [B] - field = [k⁹] or [λ⁷]} &/or

ve mass = [a] = [k³], or [k¹⁹], or potentially? [λ¹³] or 'gravity angle',

aligning with some modern paradigms i.e. 'emergence phenomenon'

linking perhaps,

system rate of entropy dS/dt with -ve gravity - a, which is also, -ve. -ve mass.

This [dS/dt] can be a candidate for Einstein's Cosmological constant Λ, in our Solar scheme

$$'S - \text{dot}' = \left[\frac{S}{\gamma} \right] = [k]^{11} = 10^{-122}, \text{ circa some current estimates of } [\Lambda] \text{ 'dark energy' perhaps?}$$

Maxwell cont.

We'll approach it differently here, allowing a 2nd order gamma differential or double dot [-dd]

Acting on Maxwell's equations.

$$-\frac{d^2 B}{dt^2} = \nabla \times \frac{dE}{dt}$$

in model terms, $dE/dt = E - \dot{E} = 1/[mm\gamma]S = k^{12} = \omega^2$

so we get

$[-vem]/\gamma = -\omega^2 \cdot k$ now transpose the gamma

$$-ve \text{ mass} = -ve \omega^2 \cdot [\gamma k],$$

yields the familiar s.h.m. expression

$$-\omega^2 \cdot \lambda = a$$

By transferring the -ve sign, we get $\omega^2 \cdot \lambda = -ve a = S - \dot{S} = \left[\frac{S}{\gamma} \right]$

$$= \frac{dS}{dt}$$

allows gravity – –entropy 'emergence' paradigm

Lorentz Force equation

$$F = q [E + v \times B]$$

There are many routes through this to yield [+ve &/or-ve] force

i.e. [F] gives *gamma or omega* respectively.

The standard assumptions apply,

say charge = +ve or -ve, or +q, -q

Charge in this model is [m.k] gives [q] = λ^4 or [p] perhaps,

& -ve[mk] = [-q] = k^4 or [π] perhaps

$$E = 1/mm = k^{10}$$

$$B = [m\gamma] = \lambda^7 \quad \text{or could be } [S] = k^9$$

We can say [X] product is -ve Operator or a standard multiplier {x}

Velocity [v] can be [c] &/or system k, of course.

Fun can be had & we get several reasonable results for variant input

& some feel,... *more natural than others*

The Hamiltonian

$$(1) \quad dq/dt = +ve \partial H / \partial p$$

$$(2) \quad -ve dp/dt = \partial H / \partial q$$

*I'm allowing previous relaxations w.r.t. 'fairly wide latitude' applies to the formalism
i.e. I often make no distinction between partial $[\partial]$ & $[d]$,
and indeed freely cancel these on most occasions.*

Generally the Hamiltonian is relaxed to

$$[H] = \text{composite 'system' energy} = m - \dot{m} = \frac{dm}{dt} \text{ etc}$$

$$[q = \lambda], [p = \text{model momentum}], [t = \gamma], \text{ etc}$$

Thus, we get

$$(1.a) \quad k = \omega m$$

$$(2.a) \quad \gamma = -ve [m - \dot{m}] . k$$

$$\text{And as system } \gamma \text{ force} = [m.k] - \dot{m} = m - \dot{m} . k (+) m.k - \dot{m}$$

*And we can say l.h.s. γ in (2.a) = ω , from $\omega = -ve[\gamma]$ and general commutativity
w.r.t. the minus sign, i.e. classically this can transpose across the equality, etc.*

*Note: The model sees an easier way than previous example, whereby we suggest, very respectfully, that a -ve sign
may be missing on l.h.s. of conventional Hamiltonian [2],*

but we can largely bypass that by rewriting Hamiltonian 1 in model terms

$$H1: \quad \lambda - \dot{m} = \frac{m - \dot{m}}{p} \quad k = \frac{\text{energy}}{\text{momentum}} = \pi . [m - \dot{m}] = \left[\frac{m}{\gamma^3} \right]$$

then simply post a -ve sign on both sides of H1 to give,

$$H2: \quad -ve \lambda - \dot{m} = \frac{-ve m - \dot{m}}{p}$$

Applying the model mode, we get

$$H1: \quad k = \omega m$$

as before, & H2: gives $[-ve k] = [-ve \text{ energy} / \text{momentum}]$, or

$$H2: \quad S = -ve [\omega . m]$$

$$S = [\{-ve \omega . m\} \leftrightarrow (+) \leftrightarrow \{\omega . -ve m\}]$$

or an entropy expression, where alternatively we could say, Hooke's constant is differentiated once w.r.t. γ ,

$$[dK/dt] = K/\gamma = K - \dot{m} = [k^7/\gamma] = S$$

$$S = k^9 \quad \text{c.w. 'peg'}$$

Of course this begs the Q? why not differentiate model Hamiltonians once again, or more.

$$* H1 : \lambda - dd = \frac{m-dd}{p} \quad \text{gives } [a] = -ve \text{ mass}$$

$$* H2 : -ve\lambda - dd = \frac{-ve m-dd}{p} \quad \text{gives } -ve[a] = dS/dt$$

Nothing very extraordinary here as we could emulate these new model entries by a minor variant on Hamilton's originals, say for H1 alone, we could say.

$$H1.a: \quad \frac{\partial H}{\partial t} \cdot \frac{\partial t}{\partial p} = \frac{dq}{dt} \quad \text{allowing } \frac{dH}{dp} = \frac{dq}{dt}$$

$$\text{Or simplified to } \frac{H}{p} = \frac{\lambda}{t} \quad \text{or, } H.t = p.\lambda$$

that gives, $\gamma.m - dot = mass$ of course., as $[p] = \lambda^4$

H1.a: is identical to/& could also be, a la mode

$$\gamma - dot. \frac{\partial H}{dp} = q - dot \quad \text{allowing } [e/p] = k, \text{ \& energy} = pk = [pc] \text{ familiar}$$

$$\text{\& } [e.\lambda] = p$$

And something similar but also inclusive of the -ve Operator both sides
for remodelled H2, where we said H2 = -ve H1

$$-ve \left[\gamma - dot. \frac{\partial H}{dp} \right] = -ve [q - dot] \quad \text{allowing } [-ve \text{ energy } /p] = -ve \text{ lambda}$$

and as - ve energy = reciprocal mass , and - ve lambda = Hooke [K], we get

$$1/mp = K - dot$$

[K] is Hooke's constant, or reciprocal Moment of Inertia [1/ I]

Then another Unity identity is found $m.p.K = 1$

Now $[m.K] = [\text{lambda}^5 . \text{Lambda}^{-7}] = 1/\text{lambda}^2 = \text{frequency}, f = 1/\gamma$

Thus $1 = pf = p - dot = p/\gamma = [dp/dt] = \gamma^2/\gamma$

gives system gamma $[\gamma]s = [F] = \{t\}$, in this scheme.

Einstein, Planck, De Broglie & Heisenberg, et al

$$S.R. \ \& \ E = mc^2$$

becomes energy = $m - \dot{}$ = mass . frequency

$$E = m.k^2$$

The model invokes a direct constant of proportionality for the mass energy equivalence

$$14. \quad \gamma.m - \dot{} = m$$

Which is a simple derivative from the system energy $e = [\text{mass}/\gamma] = [dm/dt]$

Or the Action principle, as seen in Heisenberg's pared back Uncertainty Principle

Featuring energy & time in product, with $[h]$ as the minimum of action,

$$E.t \geq h, \quad \& \text{ also used in } \Delta p.\Delta x \geq h$$

Which can be pared back to yield Louis de Broglie's wave hypothesis

$$\lambda = h/p$$

the model explicitly allows for $-ve$ mass = $[h]$

thus we have [2] de Broglie's +ve & $-ve$ lambda in a sense

$$1. \quad m = p.\lambda$$

$$+ve \text{ mass} = \text{momentum} \times \text{lambda}$$

$$= [\text{lambda}]^5, \text{ locally } [Mm]$$

$$2. \quad -ve \text{ mass} = -ve[p.\lambda] = [\{ -ve p.\lambda \leftrightarrow (+) \leftrightarrow p.-ve \lambda \}]$$

$$= [\text{lambda}]^{-3}, \text{ locally } -ve [Mm] = [h]$$

$$2. \text{ gives } acc[a] = \{ [\pi.\lambda] \leftarrow (+) \rightarrow [p.K] \}$$

$$\text{where } [p] = \lambda^4, \quad \& \quad [K] = k^7 = \text{Hooke's constant.}$$

As we introduced de Broglie here, we see the **Photo – electric effect** and the **Einstein – Planck** relationship has similarly modelled omega attributes.

$$E = h.v \text{ can possess (+ve/-ve) flavours,}$$

$$-ve E = -ve [mass . frequency] = [\{-ve m - dot\} \leftarrow (+) \rightarrow \{m . -ve f\}]$$

$$(\&) +ve E = m - dot \quad \& +ve \text{ energy, potentially sourced via } \{m . -ve[m . \lambda] = \{gamma . lambda\} = \lambda^3$$

The combination can yield up model identity

$$-ve[mass . energy] = 1$$

thus

$$[mass . energy] = -ve 1$$

$$Unity = \lambda^0 \& \{n\} \times 2\pi \text{ repeats to } \lambda^{16} = \{2\}\pi, [a . c . w.], etc$$

$$And -ve 1 = \lambda^8 \& \{n\} \times 2\pi \text{ repeats to } \lambda^{24}, [c . w.], etc$$

Where $\frac{+ve}{-ve} [1]$ can be fashioned by various periodic $\{k^n\}$ of course also, with

$$\frac{1}{2\pi} [c . w.] \text{ rotation sense application.}$$

w.r.t. the Photo – electric effect

$$\underline{kinetic E = h.v - \emptyset}$$

we see, that the **work function Phi**, can be seen as the need to overcome the **-ve** 'binding' energy perhaps,

and in any case it is a re – working of the previously stated model identity.

The equivalence principle & G.R.

The model says -ve mass = a = gravity or 'curvature-geometry'

Thus $a = k^3 = k - \dot{} = 1/e$, and 'geometrically = reciprocal Volume'

Now looking at

$$G_{\mu\nu} = 8\pi G T_{\mu\nu}$$

My assumptions are, $G_{\mu\nu}$ yields 'gravity' [a]

$T_{\mu\nu}$ is density $\text{Rho} = \frac{\text{mass}}{\text{Volume}}$ or Boylesque gamma

Ignore factor [8] as states, or some such, $G = k - \text{number}$, $pi = 1/p = k^4 = 1/\gamma^2$

then we get

$$\text{Gravity} = \pi \cdot k \cdot \rho$$

$$= [k \cdot \rho] - \ddot{}$$

$$= [k - \ddot{} \cdot \rho] (+) [k - \dot{} \cdot \rho - \dot{}] (+) [k \cdot \rho - \ddot{}]$$

$$= [\rho/m] + [a \cdot 1] + [k \cdot f] \quad 3 \text{ states}$$

The 2nd & 3rd term are acceleration/gravity [a], & equivalent $k - \dot{}$, respectively

The 1st is equivalent to $[Y/m] = 1/\text{energy} = [a]$

Thus we retrieve $[-m \cdot m - \dot{}] = 1$

w.r.t. Boyle's Law, $PV = \text{constant}$

can be, $[\gamma - \dot{} \cdot m - \dot{}] = 1$. Energy

or energy is the constant, gamma is the density, & pressure $P = F/A = [\gamma/\gamma] = \gamma - \dot{} = 1$, & energy = $\lambda^3 = \text{Volume}$

Hooke also deserves a mention as alike Kepler, he perhaps unwittingly pointed towards the model identity

$[-ve F = \text{Omega}]$ s with Hooke's law in 1660.

Nullius in verba.

There are multiple more examples I suggest, but hats off to Kepler in particular,

not to mention Tycho, & Kopernik, & Galileo 'eppur si muove' & with certainty,

Bruno the martyred one, had a stake also.

It seems a grand synthesis is in prospect, and lo! 'All Religions are 1'. [W. Blake]

& now these three remain.

$$1.c \quad [\{ h - \ddot{} \cdot \lambda \} \leftrightarrow (+) \leftrightarrow \{ h - \dot{} \cdot \lambda - \dot{} \} \leftrightarrow (+) \leftrightarrow \{ h \cdot \lambda - \ddot{} \}]$$